

REMARKS

In the Final Action dated August 9, 2010, claims 22-24, 30-33, and 35 were pending. Claims 23 and 31 were objected to for certain alleged informalities. Claims 22-24, 30-32 and 35 were rejected on the ground of obviousness-type double patenting as allegedly unpatentable over various claims of U.S. Patent 7, 202,059. Claims 22-24, 30-31, 33 and 35 were rejected on the ground of obviousness-type double patenting as allegedly unpatentable over various claims of U.S. Patent 7, 638,618.

This Response addresses each of the Examiner's objections and rejections. Applicant therefore respectfully submits that the present application is in condition for allowance. Favorable consideration of all pending claims is therefore respectfully requested.

Claim Amendments

In the foregoing amendments, claims 22-24 and 31 have been amended to delineate that Px is a yeast ADH2 promoter, and Sx is an α factor leader sequence, which are features recited in previous claim 33. Claims 23 and 31 has also been amended to address the formality objections. Claim 33 has been canceled.

New claim 36, dependent on claims 22-24 and 30, defines the host cell as a yeast cell.

New claims 37-40 are directed to a process of fermentative production of a hirudin-mini-proinsulin fusion protein. These claims are written similarly as the previous versions of claims 22-24 and 31, except for a further feature reciting "wherein the host cell is a *yeast cell* and ...".

Support for the use of a yeast cell as a host cell is found throughout the specification, e.g., on page 3, [004], and page 8, [005].

New claim 41 depends from claims 37-40, and further delineates that Px is a yeast ADH2 promoter, and Sx is an α factor leader sequence.

No new matter is introduced by the foregoing amendments and entry thereof is warranted.

Claim Objections

The objections to claims 23 and 31 for certain alleged informalities have been obviated in view of the foregoing amendments. Withdrawal of the objections is respectfully requested.

Obviousness-Type Double Patenting Rejection Based On U.S. Patent 7, 202,059

Claims 22-24, 30-32 and 35 were rejected on the ground of obviousness-type double patenting as allegedly unpatentable over various claims of U.S. Patent 7, 202,059.

It is noted that claim 33, which delineates the nucleic acid by defining Px as a yeast ADH2 promoter and Sx as an α factor leader sequence, is not included in the rejection. Applicant has amended independent claims 22-24, 30 and 31 to incorporate features recited in claim 33. Applicant respectfully submits that the rejection is therefore obviated in view of the foregoing amendments.

Applicant further respectfully submits that newly added claims 37-41 are also drawn to a process of fermentative production of a hirudin-mini-proinsulin fusion protein, similar to claims 22-24 and 31. The host cell used in the process defined in claims 37-41 is a yeast cell. It has been uniquely found in accordance with the present invention that fusion proteins containing hirudin or hirudin derivatives at the N-terminus can be exported from yeasts with good yields.

See, e.g., page 3, [004] of the specification. Applicant therefore respectfully submits that new claims 37-41 are also patentable over the claims of U.S. Patent 7, 202,059.

Obviousness-Type Double Patenting Rejection Based On U.S. Patent 7, 638,618

Claims 22-24, 30-31, 33 and 35 were rejected on the ground of obviousness-type double patenting as allegedly unpatentable over various claims of U.S. Patent 7, 638,618.

Applicant intends to file a terminal disclaimer to overcome this rejection after the Examiner determines that the claimed subject matter is otherwise allowable.

Conclusion

It is firmly believed that the subject application is in condition for allowance, which action is earnestly solicited

Respectfully submitted,



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